



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/863,888	05/22/2001	Anthony William Jorgenson	5957-41000	9420
35690	7590	06/01/2006		EXAMINER
				JUNTIMA, NITTAYA
			ART UNIT	PAPER NUMBER
			2616	

DATE MAILED: 06/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/863,888	JORGENSEN ET AL.	
	Examiner	Art Unit	
	Nittaya Juntima	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 13 March 2006.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-84 is/are pending in the application. *Cancelled*
 4a) Of the above claim(s) See Continuation Sheet is/are withdrawn from consideration.
- 5) Claim(s) 54, 56 and 71-84 is/are allowed.
- 6) Claim(s) 1, 5, 9-12, 16, 25, 27, 37, 39, 45 and 51-53 is/are rejected.
- 7) Claim(s) 6, 17 and 22-24 is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 22 May 2001 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
 Paper No(s)/Mail Date _____
- 4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date _____
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: _____

Continuation of Disposition of Claims: Claims withdrawn from consideration are 2-4,7,8,13-15,18-21,26,28-36,38,40-44,46-50,55 and 57-70.

DETAILED ACTION

1. This action is in response to the amendment filed on 3/13/2006.
2. The objections to the specification and claims are withdrawn in view of applicant's amendment.
3. Claims 2-4, 7-8, 13-15, 18-21, 26, 28-36, 38, 40-44, 46-50, 55, and 57-70 have been cancelled.
4. Claims 1, 12, 25, 37, 45, and 51-53 are presently rejected under 35 U.S.C. 102(e).
5. Claims 5, 9-11, 16, 27, and 39 are presently rejected under 35 U.S.C. 103(a).
6. Claims 54, 56, and 71-84 are allowed.
7. Claims 6, 17, 22-24, are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

9. Claims 1 and 12 are rejected under 35 U.S.C. 102(e) as being anticipated by Stanger et al. (“Stanger”) (USPN 6,097,435).

Regarding claims 1 and 12, as shown in Fig. 4, Stanger teaches an apparatus comprising:
A clock recovery unit (an input buffer 70) for receiving an encoded data (encoded data processed by an encoder 26 in Fig. 3 is received at an input buffer 70, col. 4, lines 32-40).

A data translation unit (a depacketizer 72) for mapping said received data to a predetermined data (encoded data is depacketized by a depacketizer 72, col. 4, lines 40-43).

An inverse multiplexer for inverse multiplexing said mapped predetermined data (the depacketized data is demultiplexed by a demultiplexer 74, col. 4, lines 40-43).

Wherein the clock recovery unit is to detect a data rate of said received encoded data (the input buffer 70 determines the data rate of the encoded data, col. 4, lines 32-37).

10. Claims 25, 37, and 45 are rejected under 35 U.S.C. 102(e) as being anticipated by Rowan et al. (“Rowan”) (USPN 6,529,303 B1).

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention “by another,” or by an appropriate showing under 37 CFR 1.131.

Regarding claims 25 and 37, as illustrated in Fig. 5A, Rowan teaches an apparatus comprising:

A plurality of FIFOs (526 for receiving and synchronize the four byte-wide parallel TS-3 signals) each configured to frame align a corresponding one of a plurality of STS-3 signals (col. 13, lines 24-30).

A multiplexer (524) configured to multiplex received data including said frame aligned STS-3 signals (col. 13, lines 30-33).

A data translation unit coupled to the multiplexer configured to translate the multiplexed data to a predetermined data (a unit inherently included in 522 that adds STS-12 framing to complete the STS-12 signal, col. 13, lines 33-35).

A serializer coupled to said data translation unit configured to receive said translated predetermined data and accordingly to generate a corresponding encoded data (another unit inherently included in 522 that must receive the complete STS-12 signal and convert the signal from byte-wide parallel to serial, col. 13, lines 33-35).

Regarding claim 45, it is inherent that the step of synchronizing the translated predetermined data (converted STS-12 signal from byte-wide parallel to serial) must be included in order for the converted STS-12 signal to produce the data rate of STS-12 with clock PLL by the parallel to serial converter 522, Fig. 5A and further converted into the outgoing OC-12 tributary 160A, col. 13, lines 33-37.

11. Claims 51, 52, and 53 are rejected under 35 U.S.C. 102(e) as being anticipated by Moshe et al. ("Moshe") (USPN 6,914,941 B1).

Regarding claims 51 and 53, as shown in Fig. 3, Moshe teaches an apparatus comprising:
A clock recovery unit (104) configured to received an encoded data (encoded data in the E3 signal) (col. 6, lines 5-8).

A data translation unit (114) coupled to said clock recovery unit (104), configured to translate said received data to a predetermined data, wherein said predetermined data includes a 9-bit data (Mux 114 adds framing bits to the received serial data output by FIFO 108 in order to

obtain an effective data rate for 18 E1 signals of 35.568 Mbps, col. 6, lines 13-27, a 9-bit data is not defined, therefore reads on 9 bits data contained in the effective data rate of 35.568 Mbps).

An inverse multiplexer (102) coupled to said data translation unit, configured to inverse multiplex said translated predetermined data, wherein said inverse multiplexer is further configured to synchronize said multiplexed predetermined data (data input by Mux 114 into IMUX 102) to a predetermined clock signal (112), wherein said predetermined clock signal includes a phase locked loop clock signal (112) (IMUX 102 splits up the signal from MUX 114 into 18 individual E1 signals, col. 6, lines 8-13 and 27-32).

Regarding claim 52, it is inherent that said 9-bit data includes one of an arbitrary set of 9-bit data (col. 6, lines 13-27).

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claims 5, 9-11, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stanger et al. (“Stanger”) (USPN 6,097,435) in view of Moshe et al. (“Moshe”) (USPN 6,914,941 B1).

Regarding claims 5 and 16, Stanger fails to teach that the clock delivery unit recovers a clock signal from the received encoded data.

However, in an analogous art as shown in Fig. 3, Moshe teaches a clock delivery unit (interface 104) recovers a clock signal from received encoded data (E3 signal), col. 6, lines 5-8.

Given the teaching of Moshe, it would have been obvious to one skilled in the art at the time the invention was made to modify the teaching of Stanger to include that the clock delivery unit recovers a clock signal from the received encoded data. The suggestion/motivation to do so would have been to keep the input data rate, i.e. line 32 in Fig. 4 of Stanger, constant throughout the transmission path as suggested by Moshe (col. 6, lines 8-11).

Regarding claims 9-11, Stanger fails to explicitly teach that the inverse multiplexing includes synchronizing the inverse multiplexed predetermined data to a predetermined clock signal which includes a phase locked loop clock signal.

However, in an analogous art as shown in Fig. 3, Moshe teaches the inverse multiplexing (102) includes synchronizing the inverse multiplexed predetermined data to a predetermined clock signal which includes a phase locked loop clock signal (112), col. 6, lines 5-13 and 27-32.

Given the teaching of Moshe, it would have been obvious to one skilled in the art at the time the invention was made to modify the teaching of Stanger to include that the inverse multiplexing includes synchronizing the inverse multiplexed predetermined data to a predetermined clock signal which includes a phase locked loop clock signal. The suggestion/motivation to do so would have been to keep the input data rate, i.e. line 32 in Fig. 4 of Stanger, constant throughout the transmission path as suggested by Moshe (col. 6, lines 8-11).

14. Claims 27 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rowan et al. (“Rowan”) (USPN 6,529,303 B1).

Regarding claims 27 and 39, Rowan fails to teach that the plurality of STS-3 signals includes eight STS-3 signals.

However, Rowan suggests that alternate embodiment can vary the number, bit rate, format, and protocol of some of these tributaries 160, col. 13, lines 35-43. Therefore, it would have been obvious to one skilled in the art at the time the invention was made to modify the number of STS-3 to any number including eight to produce the outgoing tributary with a higher speed signal/tributary as such modification involves only routine skill in the art.

Response to Arguments

15. Applicant's arguments filed 3/13/2006 have been fully considered but they are not persuasive.

A. In the remarks regarding independent claims 1 and 12, the applicant argues that Stanger does not teach the limitation "mapping said received data to a predetermined data."

In response, Stanger teaches that the program signal, which was in compressed and packetized form as processed by one of encoders 26 in Fig. 3, is depacketized by a depacketizer 72 (col. 4, lines 37-44). Since the claims do not specifically define the structure of the received data and the predetermined data, or how the mapping is performed, the office then interprets that the program signal in a packetized form (received data) is mapped to a program signal in a depacketized form (a predetermined data). In other words, the packetized form of program signal is mapped to a depacketized form of program signal. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In*

re Van Geuns, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Therefore, the rejection is sustained.

B. In the remarks regarding independent claims 25 and 37, the applicant argues that Rowan fails to teach the limitation “a data translation unit coupled to the multiplexer configured to translate the multiplexed data to a predetermined data.”

In response, as shown in Fig. 5A, Stanger teaches that STS-12 framing is added to the multiplexed data output from byte multiplexer 524 in order to complete the STS-12 signal (col. 13, lines 30-35). Since the claims do not specifically define the structure of the multiplexed data and the predetermined data, or how the translation is performed, Rowan clearly teaches that an inherent unit in a parallel to serial converter 522 which is coupled to the multiplexer 524 is configured to translate the multiplexed data output from the multiplexer 524 (the multiplexed data) to the STS-12 signal (a predetermined data). In other words, the multiplexed data is translated or converted to the STS-12 signal. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Therefore, the rejection is sustained.

C. In the remarks regarding independent claims 51 and 53, the applicant argues that Moshe fails to teach the limitation “a data translation unit coupled to said clock recovery unit, configured to translate said received data to a predetermined data.”

In response, as shown in Fig. 3, Moshe teaches that Mux 114 adds framing bits to the received serial data output by FIFO 108 in order to obtain an effective data rate for 18 E1 signals of 35.568 Mbps, col. 6, lines 13-27. Since the claims do not specifically define the structure of the multiplexed data and the predetermined data, or how the translation is performed,

Moshe clearly teaches that the received serial data with a data rate of 34.368 Mbps is translated to an effective data rate for 18 E1 signals of 35.568 Mbps. In other words, the received data rate of 34.368 Mbps is translated/converted to a data rate of 35.568 Mbps. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Therefore, the rejection is sustained.

Conclusion

16. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nittaya Juntima whose telephone number is 571-272-3120. The examiner can normally be reached on Monday through Friday, 8:00 A.M - 5:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

Art Unit: 2616

supervisor, Huy Vu can be reached on 571-272-3155. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Nittaya Juntima
May 26, 2006

NJ

HUY D. VU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600

A handwritten signature in black ink, appearing to read "Huy D. Vu". The signature is fluid and cursive, with a long horizontal stroke extending to the right.